

Application No.: 09/889,982

Amendment and Response dated February 17, 2004

Reply to Office Action of November 14, 2004

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**Listing of Claims**

1. (Previously presented) A synthesized oligourea comprising a basic-arginine rich region of Tat.
2. (Original) A method of inhibiting the binding of Tat protein to Tar RNA comprising introducing the oligourea of claim 1 into a cellular environment wherein the inhibition is sought to occur.
3. (Original) The method of claim 2 wherein the cellular environment is one infected by the HIV-1.
4. (Original) The method of claim 3 wherein the oligourea of claim 1 binds to the TAR RNA of HIV-1, thereby limiting the binding of Tat to TAR RNA.
5. (Previously presented) A synthesized oligourea comprising the sequence disclosed in Figure 1A.
6. (Cancelled) A synthesized oligourea comprising the structure disclosed in Figure 1B.
7. (Original) A method of inhibiting the binding of Tat protein to TAR RNA comprising introducing the oligourea of claim 5 into a cellular environment wherein the inhibition is sought to occur.
8. (Previously presented) The method of claim 7 wherein the cellular environment is one infected by the HIV-1.

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9. (Original) The method of claim 8 wherein the oligourea of claim 5 binds to the TAR RNA of HIV-1, thereby limiting the binding of the Tat to TAR RNA.
10. (Cancelled) A method of inhibiting the binding of Tat protein to TAR RNA comprising introducing the oligourea of claim 6 into a cellular environment wherein the inhibition is sought to occur.
11. (Cancelled) The method of claim 10 wherein the cellular environment is one infected by the HIV-1.
12. (Cancelled) The method of claim 11 wherein the oligourea of claim 1 binds to the TAR RNA of HIV-1, thereby limiting the binding of Tat to TAR RNA.
13. (Cancelled) A composition that has a high and specific binding affinity for a nucleic acid, comprising oligourea.
14. (Cancelled) The composition of claim 13, wherein the oligourea additionally has amino acid side-chains incorporated at the R<sub>1</sub> and R<sub>2</sub> positions of the chemical structure in Figure 1B.
15. (Cancelled) The composition of claim 14, wherein the amino acid side chains correspond in sequence to those of a nucleic acid-binding protein.
16. (Currently amended) ~~The A composition of claim 15 comprising oligourea, wherein the oligourea additionally has amino acid side chains which correspond to the basic-arginine rich region of the Tat protein.~~
17. (Original) The composition of claim 16, wherein the amino acid side-chains correspond to residues 48 - 57 of the Tat protein.

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18. (Original) The composition of claim 17, wherein the amino acid side-chains correspond to SEQ ID NO: 1.
19. (Original) The composition of claim 18, wherein the amino acid side-chains correspond to the SEQ ID NO: 1 with a L-Tyr amino acid at the carboxyl-terminus.
20. (Cancelled) A method of inhibiting a protein-nucleic acid interaction, comprising introducing the composition of claim 13.
21. (Cancelled) The method of claim 20, wherein the composition of claim 13 is introduced into a human patient.
22. (Cancelled) The method of claim 21, wherein the composition of claim 16 is introduced to a human patient infected by the HIV-1 virus.
23. (Cancelled) The method of claim 20, wherein the composition of claim 13 is introduced into an isolated cell.
24. (Cancelled) A kit comprising the composition of claim 13 in a container.
25. (Cancelled) A kit, comprising the composition of claim 13 in a container and instructions to carry out the method of claim 20.
26. (Cancelled) A composition of claim 13, which binds to nucleic acids, which has a disassociation constant ( $K_D$ ) less or equal to 0.70  $\mu\text{M}$ .

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27. (New) The oligourea of claim 1, wherein the oligourea corresponds to the structure of Figure 1B, wherein R<sub>1</sub> and R<sub>2</sub> each individually represent amino acid side chains which correspond to the basic-arginine rich region of the Tat protein.
28. (New) The composition of claim 16 wherein the oligourea corresponds to the chemical structure of Figure 1B, wherein R<sub>1</sub> and R<sub>2</sub> represent said amino acid side chains.